WE CLAIM:

1. A polyester chip comprising a coating formed substantially on the exterior of the chip comprising a substituted cyclodextrin compound, the chip comprising about 100 parts by weight to 1400 parts by weight of the substituted cyclodextrin compound per each one million parts of polyester resin, the cyclodextrin having a degree of substitution of about 0.3 to 1.8; wherein the substituted cyclodextrin is substantially free of a compound in the central pore of the cyclodextrin ring and the cyclodextrin is present in an effective amount to complex catalyst residue.

2. The chip of claim 1 wherein the polyester comprises at least 60 % by weight polyethylene terephthalate units and up to 40 % by weight other polymers.

3. The chip of claim 1 wherein the polyester comprises at least 60 % by weight polyethylene naphthalate units and up to 40 % by weight other polymers.

4. The chip of claim 1 wherein the polyester comprises a copolymer of polyethylene terephthalate/isophthalate and the cyclodextrin is a non-reducing carbohydrate.

5. The chip of claim 1 wherein the cyclodextrin compound has a substituent substantially on at least one -OH group at the -6 position of the glucose moiety in the cyclodextrin

6. The chip of claim 5 wherein the cyclodextrin compound comprises a 6-O-Methyl ether.

7. The chip of claim 5 wherein the cyclodextrin compound comprises a 6-O Acetyl ester.

8. The chip of claim 1 wherein the substituted cyclodextrin compound comprises a degree of substitution of about 0.5 to 1.2 and is present in an amount of about 350 parts by weight to about 900 parts by weight of the cyclodextrin compound per each one million parts of polyester resin.

9. A thermoplastic polyester preform comprising a thermoplastic polyester and a substituted cyclodextrin compound, the preform comprising about 100 parts by weight to 1400 parts by weight of the substituted cyclodextrin compound per each one million parts of polyester resin, the substituted cyclodextrin having a degree of substitution of about 0.3 to 1.8; wherein the cyclodextrin is substantially free of any compound in the central pore of the cyclodextrin ring and the cyclodextrin is present in an effective amount to complex catalyst residue.

10. The preform of claim 9 wherein the polyester comprises at least 60 % by weight polyethylene terephthalate units and up to 40 % by weight other polymers.

11. The chip of claim 9 wherein the polyester comprises at least 60 % by weight polyethylene naphthalate units and up to 40 % by weight other polymers.

12. The chip of claim 9 wherein the polyester comprises a copolymer of polyethylene terephthalate/isophthalate and the cyclodextrin is a non-reducing carbohydrate.

13. The preform of claim 9 wherein the cyclodextrin compound has a substituent substantially on at least one -OH group on the -6 position of the glucose moiety in the cyclodextrin

14. The preform of claim 13 wherein the cyclodextrin compound comprises a 6-O-Methyl ether.

15. The chip of claim 13 wherein the cyclodextrin compound comprises a 6-O Acetyl ester.

16. The preform of claim 13 wherein the cyclodextrin compound comprises a degree of substitution of about 0.5 to 1.2 in an amount of about 350 parts by weight to about 900 parts by weight of the cyclodextrin compound per each one million parts of polyester resin.

17. A thermoplastic polyester beverage container comprising a thermoplastic polyester and a substituted cyclodextrin compound, the container comprising about 100 parts by weight to 1400 parts by weight of the substituted cyclodextrin compound per each one million parts of polyester resin, the substituted cyclodextrin having a degree of substitution of about 0.5 to 1.8; wherein the cyclodextrin is substantially free of any compound in the central pore of the cyclodextrin ring and the cyclodextrin is present in an effective amount to complex catalyst residue.

18. The container of claim 17 wherein the polyester comprises at least 60 % by weight polyethylene terephthalate units and up to 40 % by weight other polymers.

19. The container of claim 17 wherein the polyester comprises at least 60 % by weight polyethylene naphthalate units and up to 40 % by weight other polymers.

20. The chip of claim 17 wherein the polyester comprises a copolymer of polyethylene terephthalate/isophthalate and the cyclodextrin is a non-reducing carbohydrate.

21. The container of claim 17 wherein the cyclodextrin compound has a substituent substantially on at least one -OH group on the -6 position of the glucose moiety in the cyclodextrin

22. The container of claim 21 wherein the cyclodextrin compound comprises a 6-O-Methyl.

23. The container of claim 21 wherein the cyclodextrin compound comprises a 6-O Acetyl ester.

24. The container of claim 17 wherein the cyclodextrin compound comprises a degree of substitution of about 0.5 to 1.2 in an amount of about 350 parts by weight to about 900 parts by weight of the cyclodextrin compound per each one million parts of polyester resin.

25. A method of making a shaped polyester member comprising the steps of:

(a) forming a coating of a cyclodextrin material on the surface of a polyester pellet or chip in an amount of about 100 parts by weight to 1400 parts by weight of a substituted cyclodextrin per each one million parts of polyester to form a coated chip, the substituted cyclodextrin having a degree of substitution of about 0.3 to 1.8; wherein the substituted cyclodextrin is substantially free of any compound in the central pore of the cyclodextrin ring and the cyclodextrin is present in an effective amount to complex catalyst residue; and

(b) melt extruding the coated chip in an extruder to form a polymer melt into a shaped polymer.

26. The method of claim 25 wherein the shaped polymer member comprises a parison, preform or container.

27. The method of claim 25 wherein the shaped polymer member comprises a polymer preform and further comprises the steps of inflating the polymer preform at an appropriate temperature and pressure to form a thermoplastic beverage container.

28. The method of claim 25 wherein the polyester comprises at least 60 % by weight polyethylene terephthalate units and up to 40 % by weight other polymers.

29. The method of claim 25 wherein the polyester comprises at least 60 % by weight polyethylene terephthalate units and up to 40 % by weight other polymers.

30. The chip of claim 25 wherein the polyester comprises at least 60 % by weight polyethylene naphthalate units and up to 40 % by weight other polymers.

31. The chip of claim 25 wherein the polyester comprises a copolymer of polyethylene terephthalate/isophthalate and the cyclodextrin is a non-reducing carbohydrate.

32. The chip of claim 25 wherein the cyclodextrin compound has a substituent substantially on at least one -OH group on the -6 position of the glucose moiety in the cyclodextrin

33. The chip of claim 32 wherein the cyclodextrin compound comprises a 6-O-Methyl ether.

34. The chip of claim 32 wherein the cyclodextrin compound comprises a 6-O Acetyl ester.

35. The chip of claim 25 wherein the cyclodextrin compound comprises a degree of substitution of about 0.5 to 1.2 in an amount of about 350 parts by weight to about 900 parts by weight of the cyclodextrin compound per each one million parts of polyester resin.

36. A method of making a polyester chip comprising the steps of:

(a) forming an aqueous solution of a substituted cyclodextrin compound, the solution comprising about 1.0 to 50 weight percent of the substituted cyclodextrin compound;

(b) contacting the aqueous solution with an activated carbon absorbent, an ion exchange resin, a reverse osmosis membrane or a nanofiltration

membrane to reduce the concentration of impurities in the aqueous solution to form a purified aqueous solution;

(c) contacting a polyester chip with the purified aqueous solution to form a coating of a cyclodextrin material on the surface of a polyester chip in an amount of about 100 parts by weight to 1400 parts by weight of the cyclodextrin compound, per each one million parts by weight of the polymer chip to form a coated chip; and,

(d) drying the coated chip.

37. The method of claim 36 wherein the coating is formed from a solution comprising about 3.0 to 40 wt.-% cyclodextrin in an aqueous medium.

38. The method of claim 36 wherein the polyester comprises at least 60 % by weight polyethylene terephthalate units and up to 40 % by weight other polymers.

39. The method of claim 36 wherein the polyester comprises at least 60 % by weight polyethylene naphthalate units and up to 40 % by weight other polymers.

40. The chip of claim 36 wherein the polyester comprises a copolymer of polyethylene terephthalate/isophthalate and the cyclodextrin is a non-reducing carbohydrate.

41. The method of claim 36 wherein the cyclodextrin compound has a substituent substantially on at least one -OH group on the -6 position of the glucose moiety in the cyclodextrin

42. The method of claim 41 wherein the cyclodextrin compound comprises a 6-O-Methyl ether.

43. The method of claim 41 wherein the cyclodextrin compound comprises a 6-O Acetyl ester.

44. The method of claim 41 wherein the cyclodextrin compound comprises a degree of substitution of about 0.5 to 1.2 in an amount of about 350 parts by weight to about 900 parts by weight of the cyclodextrin compound per each one million parts of polyester resin.

45. A method of making a polyester beverage container comprising the steps of:

(a) forming an aqueous solution of a substituted cyclodextrin compound, the solution comprising about 1.0 to 50 weight percent of the substituted second action compound;

(b) contacting the aqueous solution with an activated carbon absorbent, an ion exchange resin or a reverse osmosis membrane, to reduce the concentration of impurities in the aqueous solution to form a purified aqueous solution;

(c) contacting a polyester chip with the purified aqueous solution to form a coating of a cyclodextrin material on the surface of the polyester chip in an amount of about 100 parts by weight to 1400 parts by weight of the cyclodextrin compound, per each one million parts by weight of the polymer chip to form a coated chip;

(d) drying the chip to form a coated chip; and

(e) melt extruding the coated chip in an extruder to form a shaped beverage container.

46. The method of claim 45 wherein the shaped polymer comprises a polyester container having a volume of about 250mL to 5 Liters.

47. The method of claim 45 wherein the polyester comprises at least 60 % by weight polyethylene terephthalate units and up to 40 % by weight other polymers.

48. The method of claim 45 wherein the polyester comprises at least 60 % by weight polyethylene naphthalate units and up to 40 % by weight other polymers.

49. The chip of claim 45 wherein the polyester comprises a copolymer of polyethylene terephthalate/isophthalate and the cyclodextrin is a non-reducing carbohydrate.

50. The method of claim 47 wherein a preform is melt formed prior to forming a shaped container.

51. The method of claim 45 wherein the polyester comprises see claim 2

52. The method of claim 45 wherein the polyester comprises see claim 3, 3a

53. The method of claim 45 wherein the cyclodextrin compound has a substituent substantially on at least one -OH group on the -6 position of the glucose moiety in the cyclodextrin.

54. The method of claim 53 wherein the cyclodextrin compound comprises a 6-O-Methyl ether.

55. The method of claim 53 wherein the cyclodextrin compound comprises a 6-O Acetyl ester.

56. The method of claim 45 wherein the cyclodextrin compound comprises a degree of substitution of about 0.5 to 1.2 in an amount of about 350 parts by weight to about 900 parts by weight of the cyclodextrin compound per each one million parts of polyester resin.

57. A method of making a polyester chip comprising the steps of:

(a) passing a stream comprising a molten polyester through a process device comprising an exit orifice;

(b) forming an liquid comprising a substituted cyclodextrin compound;

(b) introducing the liquid comprising the substituted cyclodextrin into the stream of molten polyester proximate to a mixing means in the process device to form a treated stream; and

(d) passing the treated stream through the orifice forming the polyester chip.

58. The method of claim 57 wherein the liquid comprising about 1.0 to 50 weight percent of the substituted cyclodextrin compound

59. The method of claim 57 wherein the liquid comprises molten polyethylene terephthalate and the mixing means is proximate to the orifice.

60. The method of claim 57 wherein mixing means is next adjacent to the orifice.

61. The method of claim 57 wherein the liquid comprises an oil.

62. The method of claim 57 wherein the polyester comprises at least 60 % by weight polyethylene terephthalate units and up to 40 % by weight other polymers.

63. The method of claim 57 wherein the polyester comprises at least 60 % by weight polyethylene naphthalate units and up to 40 % by weight other polymers.

64. The method of claim 57 wherein the cyclodextrin compound has a substituent substantially on at least one -OH group on the -6 position of the glucose moiety in the cyclodextrin

65. The method of claim 57 wherein the cyclodextrin compound comprises a 6-O-Methyl ether.

66. The method of claim 57 wherein the cyclodextrin compound comprises a 6-O Acetyl ester.

67. The method of claim 57 wherein the cyclodextrin compound comprises a degree of substitution of about 0.5 to 1.2 in an amount of about 350 parts by weight to about 900 parts by weight of the cyclodextrin compound per each one million parts of polyester resin.

68. The method of claim 59 wherein the liquid is formed by introducing a powdered cyclodextrin compound into a molten polyester stream in an extruder device.

69. The method of claim 57 wherein the chip is subjected to SSP processing after chip formation.